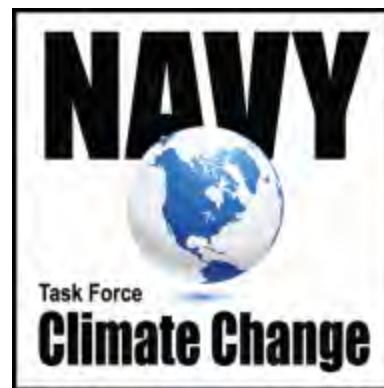




## *Setting the Scene: Climate Risk and Resilience*

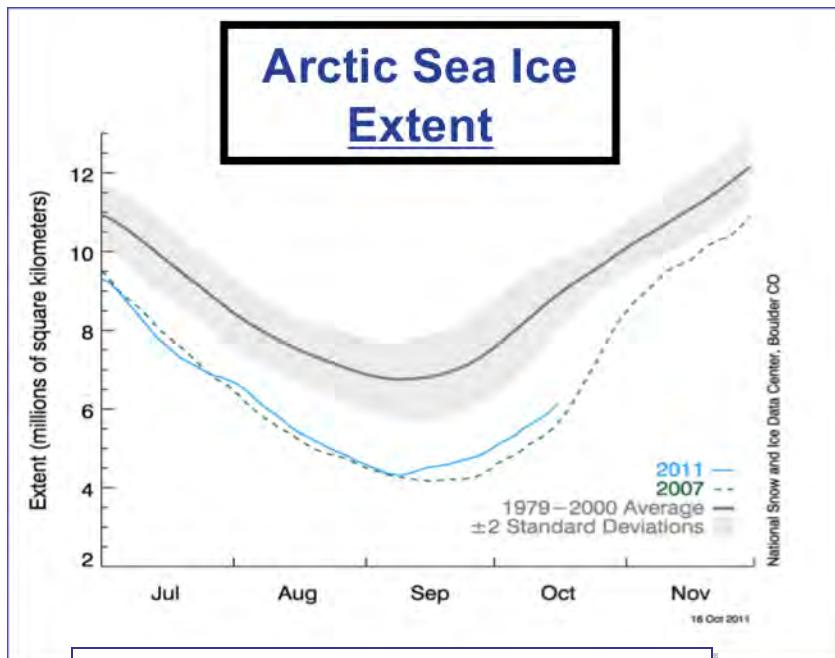


RADM Dave Titley  
Director, Task Force Climate Change  
Oceanographer of the Navy  
October 2011

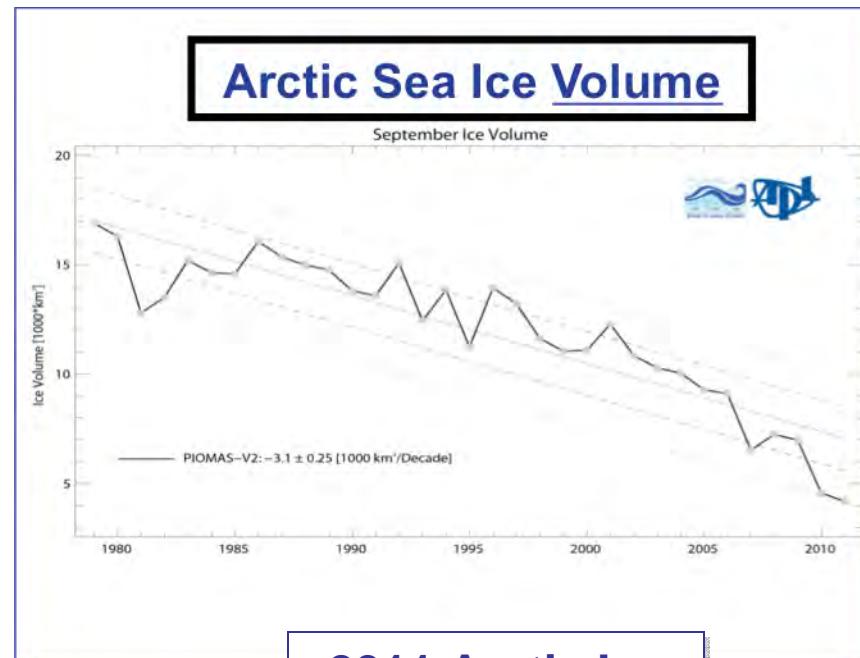
<b>Report Documentation Page</b>			<i>Form Approved OMB No. 0704-0188</i>	
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# Arctic Trends



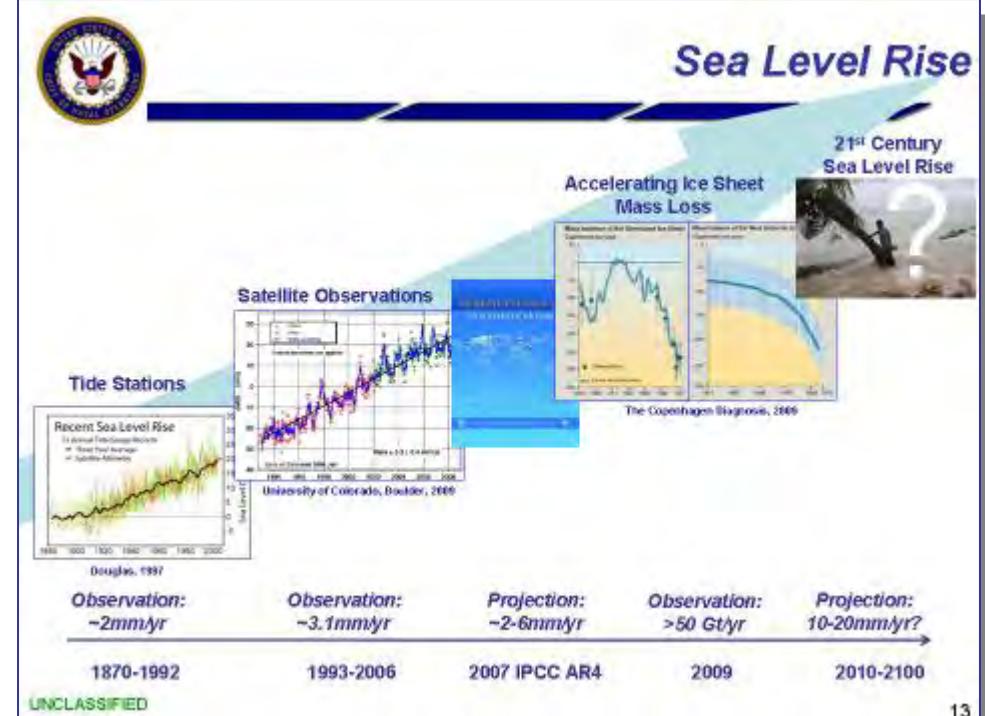
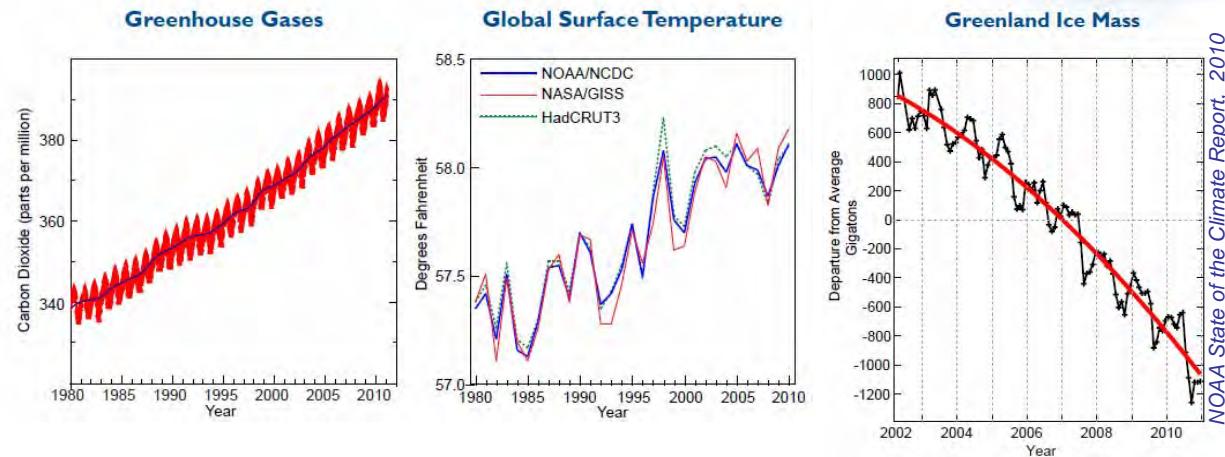
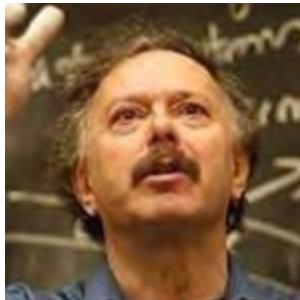
2011 Arctic Ice extent  
close to 2007's record low



2011 Arctic Ice  
volume was a  
record low



# Global Climate Change

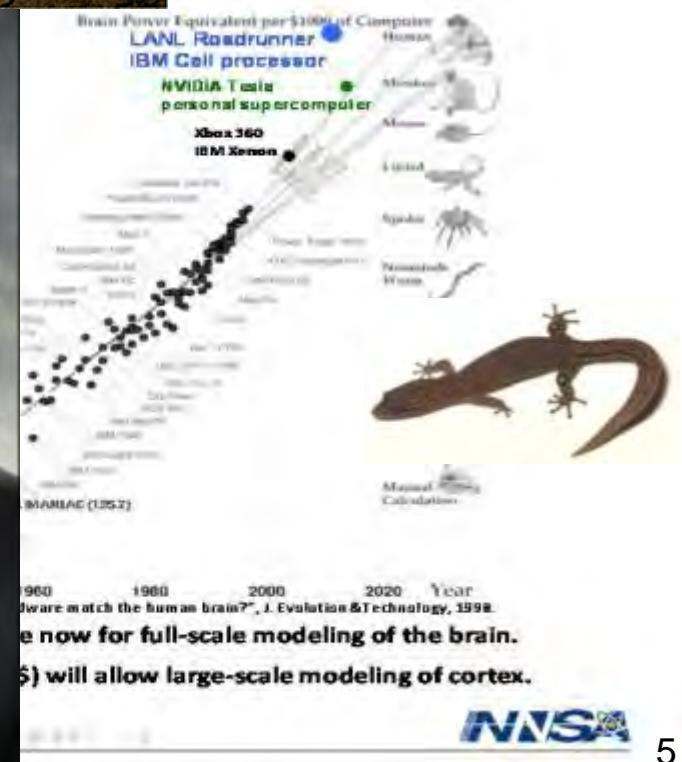




## So What Does this Mean?



UNCLASSIFIED

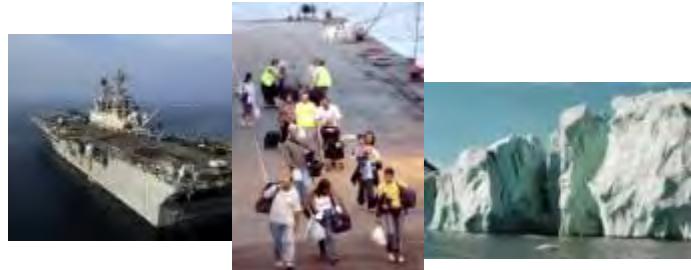




# Navy Concerns

## Operations & Plans

- Increasing Arctic maritime activity
- Adaptation partnerships opportunities
- Potential increase in Humanitarian Assistance/Disaster Response



## Installations & Environment

- Impact of sea level rise
- Water resources
- Natural & cultural resources

## Wild-cards

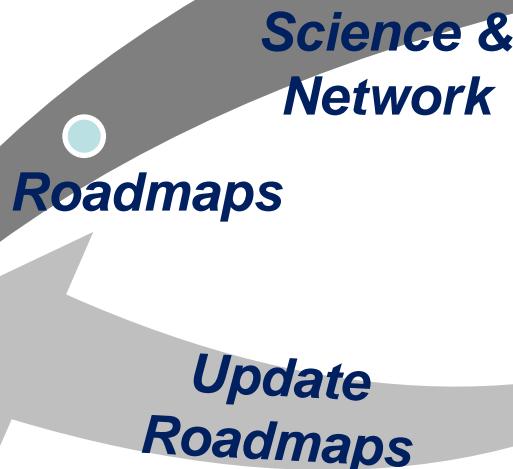
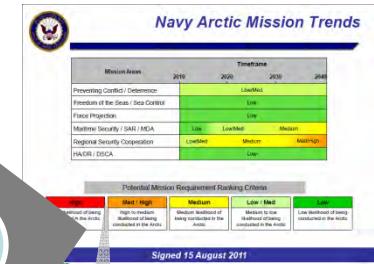
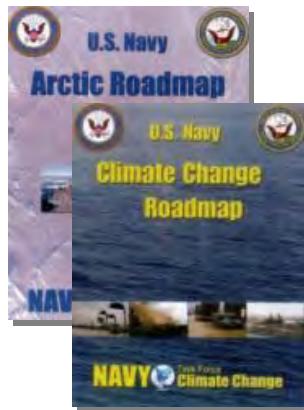
- Ocean acidification
- Abrupt climate change
- Geoengineering



*It's all about Readiness*



# U.S. Navy Task Force Climate Change



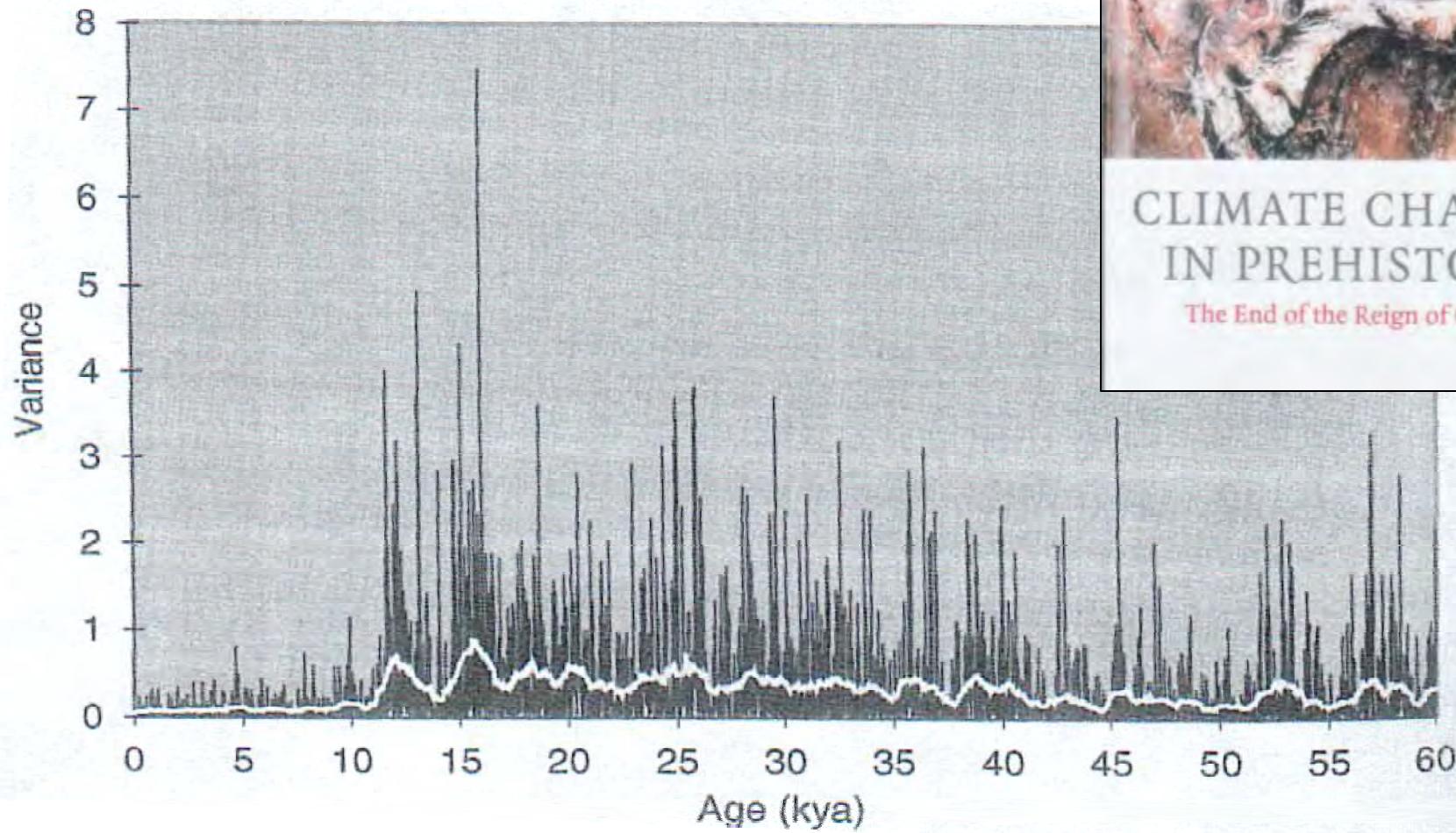
Assessment

Inform Policy & Resource Decisions

Monitor Conditions

Science-based approach, cooperative partnerships, risk assessments





## CLIMATE CHANGE IN PREHISTORY

*The End of the Reign of Chaos*